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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,395	05/10/2005	Mark A Weber	WEBER, M A I PCT	2857
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COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576				
EXAMINER				
PRITCHETT, JOSHUA L				
ART UNIT		PAPER NUMBER		
2872				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/534,395

Applicant(s)

WEBER, MARK A

Examiner

JOSHUA L. PRITCHETT

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3, 4, 6-9 and 11-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3, 4, 6-9 and 11-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
Paper No(s)/Mail Date 11/07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This action is in response to Request for Continued Examination and Amendment filed November 30, 2007. Claims 3, 4, 6-9, 11, 12, 13 and 14 were amended, claims 1, 2, 5 and 10 were cancelled and claims 16 and 17 were added as requested by the applicant.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 8-10 and 12-15 rejected under 35 U.S.C. 102(b) as being anticipated by West (US 4,963,018).

Claims 3, 4, 6-9 and 11-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over West (US 4,963,018) in view of Tiziani ("Three dimensional analysis by a microlens-array confocal arrangement").

Regarding claims 16 and 17, West teaches method in computer-controlled microscopy, for producing surface images of the internal surfaces of cylinders in engine blocks (col. 1 lines 60-65), by using a microscope having a microscope body (Fig. 1), a tube (11) attached to the

microscope body and having a lens (46), which is preceded by a deflection optical system (41 or 44) having a horizontal translator (col. 3 line 62 – col. 4 line 10). West teaches the deflection optical system deflects the beam by less than 90-degrees (44; Fig. 2). West teaches a device for attaching and adjusting the computer-controlled confocal microscope to be moved into cylinders of engine blocks, to measure the internal surfaces of the cylinders (col. 3 lines 45-55). West lacks reference to a three dimensional image. Tiziani teaches a microscope capable of creating a three dimensional confocal image of an object (page 1 col. 1). Tiziani teaches using a Nipkow disk, a beam splitter, a light source and a CCD camera (page 2 col. 2). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West invention include the elements of Tiziani for the purpose of creating an image to determine the structure of the wall of an engine cylinder and the presence of any corrosion.

Regarding claim 2, West teaches a deflection optical system located ahead of the lens (Fig. 2).

Regarding claim 3, West teaches the deflection optical system consists of a reflection prism (41).

Regarding claim 4, West teaches the deflection optical system consists of a surface mirror (44).

Regarding claims 6 and 7, West teaches the invention as claimed but lacks reference to the equalization length. The current specification fails to mention equalization length. The examiner therefore is interpreting the equalization length to be similar to that of the focal length. West teaches the focus of the microscope is adjustable (col. 3 line 62 – col. 4 line 10). Therefore it would be within the skill of one of ordinary skill in the art at the time the invention was made

to have the focal length be a wide range of distances including 45mm and shorter distances. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West reference have the claimed equalization length as suggested by West for the purpose of viewing the wall of the cylinder at different distances to obtain an in-focus image of the cylinder wall.

Regarding claim 8, West teaches the lens can be moved by means of a piezo setting element (col. 6 lines 53-55).

Regarding claim 9, West teaches the lens can be moved by means of a stepper motor (15).

Regarding claim 11, West teaches the invention as claimed but lacks reference to a clamp or screw attachment. West suggests the use of a positioner (13) on the microscope. The tabs 13 as seen in Fig. 2 act very similar to a clamp because the tabs act to hold the microscope in place relative to the cylinder during inspection of the cylinder wall. The examiner interprets the tabs as taught by West to be an obvious equivalent of a clamp. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the West invention include a clamp for the purpose of more securely holding the microscope in place relative to the cylinder being inspected.

Regarding claim 12, West teaches the microscope can be moved into the cylinder by means of a linear guide (col. 3 lines 34-40).

Regarding claim 13, West teaches the microscope is adjustable and can be fixed in place with regard to the insertion depth, by means of the linear guide (col. 3 lines 34-60).

Regarding claim 14, West teaches the attachment device of the adjustment device allows a rotation about the cylinder axis (col. 2 lines 20-25).

Regarding claim 15, West teaches the attachment allows an adjustment of the distance between the lens and the internal surface of the cylinder, in other words focusing (col. 3 line 62 – col. 4 line 10).

Response to Arguments

Applicant's arguments, see Amendment, filed November 30, 2007, with respect to the rejection(s) of claim(s) 16 under West have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Tiziani.

Applicant argued West does not teach three dimensional confocal imaging. The examiner agrees that West fails to teach three dimensional confocal imaging, however, as stated in the rejection above the Tiziani reference provides the teachings for the three dimensional confocal imaging. When the additional elements taught by Tiziani are included in the West reference as set forth in the rejection above the prior art will teach all structural elements of the claim language and therefore would be capable of performing all the claimed functional elements of the claim language (MPEP 2114).

Applicant further argued West fails to teach microscopy. A microscope is defined as an optical instrument consisting of lenses or a combination of lenses for making enlarged images of minute objects. The examiner believes West fits this definition because it includes lenses and

provides an enlarged view of the side wall of the engine cylinder and therefore this argument is not persuasive.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSHUA L. PRITCHETT whose telephone number is (571)272-2318. The examiner can normally be reached on Monday - Friday 7:00 - 3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephone B. Allen can be reached on 571-272-2434. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joshua L Pritchett/
Primary Examiner
Art Unit 2872